DETAILED ACTION

1. This office action is in response to the Amendment filed on 03/04/2010.

2. Claims 9-13 and 15-30 are pending in this office action. Claims 1-8 and 14 have been cancelled by the Applicant. Claim 17 has been amended. Claims 25 and 30 have been newly added.

Response to Amendment

3. The Examiner withdraws previous 35 USC 112 second paragraph rejection regarding claim 17, in view of the Amendment filed on 03/04/2010.

Response to Arguments

4. Applicant's arguments filed 03/04/2010 have been fully considered but they are not persuasive.

The Applicant argues,

> "The combination of Koch with Ogus is not proper because Koch specifically teaches away from measuring volume as in the Ogus reference. The Koch reference ...without regard to the volume of contents received…also Koch does not disclose or suggest a monitoring arrangement that is configurable by a higher-level instance…" (refer to pg.8 of the Amendment filed on 03/04/2010)
> "…"...interrupt transfer of at least one isochronous channel through limiting the number of data transfers for each of a plurality of network nodes..."…This feature is wholly absent from the Koch and Ogus refernces…" (refer to pg.9 of the Amendment filed on 03/04/2010)

In response:

Although Koch discloses a network bridge that monitors both incoming and outgoing data (Koch, Abstract, col.1 ln.49-65, col.2 ln.55-col.3 ln.10, col.4 ln.54-64, col.6 ln.8-15), Koch

fails to explicitly disclose monitoring the volume of at least one of incoming and outgoing data flowing through the network bridge and its memory.

Ogus discloses a network protocol and associated methods for optimizing use of available bandwidth across a network under varying network traffic conditions (Ogus, Abstract). The system detects link saturation, the link bandwidth is calculated to reduce message sending rate, then wait time is calculated at which messages are prohibited/stalled (Ogus, col.3 ln.40-64). Ogus further discloses monitoring the amount of data that is communicated to the recipient (col.19 ln.40-56, col.20 ln.8-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Koch with those of Ogus to monitor the volume of data communicated. One would have been motivated to do so since Koch discloses a bridge that enables high bandwidth and high operating speeds, wherein the system disclosed by Koch monitors the data communicated, and Ogus discloses a method of optimizing the bandwidth that includes monitoring the amount of data communicated.

Claim Objections

5. Claims 25 and 26 are objected to because of the following informalities: The claims are duplicate claims. Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 9-13 and 15-19, 21, 22, 24-28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koch et al. (US Patent #4,715,030), hereinafter referred to as Koch, in view of Ogus (US Patent #6,587,875 B1).

Regarding claim 9, Koch discloses, a network bridge comprising: wherein the monitoring arrangement for monitoring is configurable by a higher-level instance, and is configured so that in addition to an analysis of the data, an operation on the data is performed (Koch, Abstract, col.1 ln.49-65, col.2 ln.55-62, col.3. ln.1-10, col.4 ln.1-21, col.6 ln.7-16, col.8 ln.1-col.9 ln.42. Koch discloses various ways of determining the action resulting from monitoring. Koch also discloses that the monitoring is configurable. For example, filter configuration is configurable.).

Although Koch discloses a network bridge that monitors both incoming and outgoing data (Koch, Abstract, col.1 ln.49-65, col.2 ln.55-col.3 ln.10, col.4 ln.54-64, col.6 ln.8-15), Koch fails to explicitly disclose monitoring the volume of at least one of incoming and outgoing data flowing through the network bridge and its memory. Ogus discloses a network protocol and associated methods for optimizing use of available bandwidth across a network under varying network traffic conditions (Ogus, Abstract). Ogus further discloses monitoring the amount of data that is communicated to the recipient (col.19 ln.40-56, col.20 ln.8-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Koch with those of Ogus to monitor the volume of data communicated. One would have been motivated to do so since Koch discloses a bridge that enables high bandwidth and high operating speeds, wherein the system disclosed by Koch monitors the data communicated, and

Ogus discloses a method of optimizing the bandwidth that includes monitoring the amount of data communicated.

Regarding claim 11, Koch disclosed the limitations, as described in claim 9, and further discloses, a network bridge wherein the higher-level instance includes at least one of a management and configuration layer for the network bridge (Koch, Abstract, col.1 ln.49-65, col.3. ln.1-10, col.6 ln.7-16, col.8 ln.1-col.9 ln.42.).

Regarding claim 12, Koch disclosed the limitations, as described in claim 9, and further discloses, a network bridge wherein the monitoring arrangement for monitoring encompasses a software component within a network bridge architecture, the component having at least one of a gateway functionality and a firewall functionality (Koch, Abstract, col.1 ln.49-65, col.3. ln.1-10, col.6 ln.7-16, col.8 ln.1-col.9 ln.42.).

Regarding claim 13, Koch disclosed the limitations, as described in claim 9, and further discloses, a network bridge wherein an extent of a data analysis by the monitoring arrangement for monitoring is adjustable (Koch, Abstract, col.1 ln.49-65, col.3. ln.1-10, col.6 ln.7-16, col.8 ln.1-col.9 ln.42.).

Regarding claim 15, Koch disclosed the limitations, as described in claim 9, and further discloses, a network bridge wherein an analysis of the data and operation on the data are performable in various layers of a layer model, including an OSI reference model (Koch, col.1 ln.26-45, col.2 ln.26-26. OSI reference model is disclosed as an example of a layer model, upon which the invention is implemented.).

Regarding claim 16, Koch disclosed the limitations, as described in claim 9, and further discloses, a network bridge according wherein the monitoring arrangement for monitoring is

configured to one of block and prioritize at least one of address interfaces, input interfaces, output interfaces, and logged data, on the basis of an evaluation (Koch, Abstract, col.1 ln.49-65, col.3. ln.1-10, col.6 ln.7-16, col.8 ln.1-col.9 ln.42. Koch discloses various ways of determining the action resulting from monitoring, such as blocking transmission from certain addresses, etc.).

Regarding claim 17, Koch discloses, a system comprising: a plurality of network bridges, the monitoring arrangement for monitoring being configurable by a higher-level instance (Koch, Abstract, col.1 ln.49-65, col.3. ln.1-10, col.6 ln.7-16, col.8 ln.1-col.9 ln.42. Koch discloses various ways of determining the action resulting from monitoring.), the monitoring arrangement for monitoring being individually configurable in each network bridge to allow each network bridge, independently of other of the network bridges, to be capable of performing functions of one of a gateway and a firewall;

wherein monitoring of the data volume includes interrupt transfer of at least one isochronous channel through limiting the number of data transfers for each of a plurality of network nodes; and wherein the monitoring arrangement for monitoring is configured in such a way that in addition to an analysis of the data, a manipulation of the data is performed as well (Koch, Abstract, col.1 ln.49-65, col.3. ln.1-10, col.6 ln.7-16, col.8 ln.1-col.9 ln.42.).

Although Koch discloses a network bridge that monitors both incoming and outgoing data (Koch, Abstract, col.1 ln.49-65, col.2 ln.55-col.3 ln.10, col.4 ln.54-64, col.6 ln.8-15), Koch fails to explicitly disclose monitoring the volume of at least one of incoming and outgoing data flowing through the network bridge and its memory. Ogus discloses a network protocol and associated methods for optimizing use of available bandwidth across a network under varying network traffic conditions (Ogus, Abstract). Ogus further discloses monitoring the amount of

data that is communicated to the recipient (col.19 ln.40-56, col.20 ln.8-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Koch with those of Ogus to monitor the volume of data communicated. One would have been motivated to do so since Koch discloses a bridge that enables high bandwidth and high operating speeds, wherein the system disclosed by Koch monitors the data communicated, and Ogus discloses a method of optimizing the bandwidth that includes monitoring the amount of data communicated.

Regarding claim 18, Koch disclosed the limitations as disclosed in claim 17, and further discloses wherein the higher-level instance includes a software layer having management and configuration capabilities Koch, Abstract, col.1 ln.49-65, col.3. ln.1-10, col.6 ln.7-16, col.8 ln.1-col.9 ln.42.).

Regarding claim 19, Koch disclosed the limitations as disclosed in claim 17, and further discloses, wherein an extent of data analysis by the monitoring arrangement for monitoring is adjustable, wherein the higher-level instance includes at least one of a management and configuration layer for the network bridge, and wherein the monitoring arrangement for monitoring encompasses a software component within a network bridge architecture, the component having at least one of a gateway functionality and a firewall functionality (Koch, Abstract, col.1 ln.49-65, col.3. ln.1-10, col.6 ln.7-16, col.8 ln.1-col.9 ln.42.).

Regarding claim 21, Koch disclosed the limitations, as described in claim 19, and further discloses, wherein an analysis of the data and operation on the data are performable in various layers of a layer model including an OSI reference model (Koch, Abstract, col.1 ln.49-65, col.3. ln.1-10, col.6 ln.7-16, col.8 ln.1-col.9 ln.42).

Regarding claim 22, Koch disclosed the limitations, as described in claim 9, and further discloses wherein an extent of a data analysis by the monitoring arrangement for monitoring is adjustable, wherein the higher-level instance includes at least one of a management and configuration layer for the network bridge, and wherein the monitoring arrangement for monitoring encompasses a software component within a network bridge architecture, the component having at least one of a gateway functionality and a firewall functionality (Koch, Abstract, col.1 ln.49-65, col.3. ln.1-10, col.6 ln.7-16, col.8 ln.1-col.9 ln.42.).

Regarding claim 24, Koch disclosed the limitations, as described in claim 22, and further discloses wherein an analysis of the data and operation on the data are performable in various layers of a layer model, including an OSI reference model (Koch, Abstract, col.1 ln.49-65, col.3. ln.1-10, col.6 ln.7-16, col.8 ln.1-col.9 ln.42.).

Regarding claim 25, Koch disclosed the limitations, as described in claim 9, and further discloses wherein the operation on the data includes manipulating data from a user data layer (Koch, col.1 ln.49-65, col.2 ln.55-62, col.3. ln.1-10, col.4 ln.1-21, col.6 ln.7-16, col.8 ln.1-col.9 ln.42. Koch discloses various ways of determining the action resulting from monitoring.).

Regarding claim 26, Koch disclosed the limitations, as described in claim 9, and further discloses wherein the operation on the data includes analyzing data from a user data layer (Koch, col.1 ln.49-65, col.2 ln.55-62, col.3. ln.1-10, col.4 ln.1-21, col.6 ln.7-16, col.8 ln.1-col.9 ln.42. Koch discloses various ways of determining the action resulting from monitoring.).

Regarding claim 27, Koch disclosed the limitations as described in claim 9, and although Koch discloses a network bridge that monitors both incoming and outgoing data (Koch, Abstract, col.1 ln.49-65, col.2 ln.55-col.3 ln.10, col.4 ln.54-64, col.6 ln.8-15), Koch fails to explicitly

disclose wherein the arrangement for monitoring is configured to monitor a data volume over a specific period of time and wherein the arrangement for monitoring is configured to control the data flow, responsive to measuring at least a threshold volume for the specific period of time, so that each individual node is permitted only a specific number of data transfers, such that further data transfers are ignored.

Ogus discloses a network protocol and associated methods for optimizing use of available bandwidth across a network under varying network traffic conditions (Ogus, Abstract). Ogus further discloses, wherein the arrangement for monitoring is configured to monitor a data volume over a specific period of time and wherein the arrangement for monitoring is configured to control the data flow, responsive to measuring at least a threshold volume for the specific period of time, so that each individual node is permitted only a specific number of data transfers, such that further data transfers are ignored (The system detects link saturation, the link bandwidth is calculated to reduce message sending rate, then wait time is calculated at which messages are prohibited/stalled (Ogus, col.3 ln.40-64). Ogus further discloses monitoring the amount of data that is communicated to the recipient (col.19 ln.40-56, col.20 ln.8-22).). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Koch with those of Ogus to monitor the volume of data communicated. One would have been motivated to do so since Koch discloses a bridge that enables high bandwidth and high operating speeds, wherein the system disclosed by Koch monitors the data communicated, and Ogus discloses a method of optimizing the bandwidth that includes monitoring the amount of data communicated.

Regarding claim 28, Koch disclosed the limitations as described in claim 27, wherein the controlling of the data flow includes interrupting transfer of all isochronous channels and applying the specific number of data transfers to transfers on asynchronous channels (Koch, col.1 ln.49-65, col.2 ln.55-col.3 ln.10, col.4 ln.54-64, col.6 ln.8-15).

Regarding claim 30, Koch disclosed the limitations as described in claim 29, and although Koch discloses a network bridge that monitors both incoming and outgoing data (Koch, Abstract, col.1 ln.49-65, col.2 ln.55-col.3 ln.10, col.4 ln.54-64, col.6 ln.8-15), Koch fails to to explicitly disclose, wherein the operation on the data includes analyzing or manipulating data from a user data layer, wherein the arrangement for monitoring is configured to monitor a data volume over a specific period of time and wherein the arrangement for monitoring is configured to control the data flow, responsive to measuring at least a threshold volume for the specific period of time, so that each individual node is permitted only a specific number of data transfers, such that further data transfers are ignored, and wherein controlling of the data flow includes interrupting transfer of all isochronous channels and applying the specific number of data transfers to transfers on asynchronous channels.

Ogus discloses a network protocol and associated methods for optimizing use of available bandwidth across a network under varying network traffic conditions (Ogus, Abstract). Ogus further discloses, wherein the operation on the data includes analyzing or manipulating data from a user data layer, wherein the arrangement for monitoring is configured to monitor a data volume over a specific period of time and wherein the arrangement for monitoring is configured to control the data flow, responsive to measuring at least a threshold volume for the specific period of time, so that each individual node is permitted only a specific number of data transfers, such

that further data transfers are ignored, and wherein controlling of the data flow includes interrupting transfer of all isochronous channels and applying the specific number of data transfers to transfers on asynchronous channels (The system detects link saturation, the link bandwidth is calculated to reduce message sending rate, then wait time is calculated at which messages are prohibited/stalled (Ogus, col.3 ln.40-64). Ogus further discloses monitoring the amount of data that is communicated to the recipient (col.19 ln.40-56, col.20 ln.8-22).). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Koch with those of Ogus to monitor the volume of data communicated. One would have been motivated to do so since Koch discloses a bridge that enables high bandwidth and high operating speeds, wherein the system disclosed by Koch monitors the data communicated, and Ogus discloses a method of optimizing the bandwidth that includes monitoring the amount of data communicated.

8. Claims 10, 20, 23, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koch et al. (US Patent #4,715,030), hereinafter referred to as Koch, , in view of Ogus (US Patent #6,587,875 B1), further in view of Kondou et al. (US Patent #6,519,671 B1), hereinafter referred to as Kondou.

Regarding claim 10, Koch disclosed the limitations, as described in claim 9, and further discloses the use of the network bridge for coupling network buses (Koch, col.4 ln.44-50, col.5 ln.14-20.), however, does not explicitly disclose a network bridge for coupling IEEE 1394.

Kondou discloses, method of network configuration, method and apparatus for information processing, and computer-readable media utilizing a bridges. Kondou further

discloses a network bridge wherein the network bridge is for coupling IEEE 1394 buses (Kondou, Abstract, col.1 ln.8-12, col.1 ln.15-20, col.4 ln.57-61.). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Koch with those of Kondou to implement network bridges for coupling IEEE 1394 buses. One would have been motivated to do so, as Koch discloses that the invention is used for known coupling network buses, and IEEE 1394 buses was a well-known standard.

Regarding claim 20, Koch disclosed the limitations, as disclosed in claim 19, and further discloses, and wherein the monitoring arrangement for monitoring is configured to one of block and prioritize at least one of address interfaces, output interfaces, and logged data, on the basis of an evaluation (Koch, Abstract, col.1 ln.49-65, col.3. ln.1-10, col.6 ln.7-16, col.8 ln.1-col.9 ln.42. Koch discloses various ways of determining the action resulting from monitoring, such as blocking transmission from certain addresses, etc.).

However, Koch fails to explicitly disclose a network bridge for coupling IEEE 1394 buses. Kondou discloses, method of network configuration, method and apparatus for information processing, and computer-readable media utilizing a bridges. Kondou further discloses a network bridge wherein the network bridge is for coupling IEEE 1394 buses (Kondou, Abstract, col.1 ln.8-12, col.1 ln.15-20, col.4 ln.57-61.). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Koch with those of Kondou to implement network bridges for coupling IEEE 1394 buses. One would have been motivated to do so, as Koch discloses that the invention is used for known coupling network buses, and IEEE 1394 buses was a well-known standard.

Regarding claim 23, Koch disclosed the limitations, as described in claim 22, and further discloses wherein the monitoring arrangement for monitoring is configured to one of block and prioritize at least one of address interfaces, input interfaces, output interfaces, and logged data, on the basis of an evaluation (Koch, Abstract, col.1 ln.49-65, col.3. ln.1-10, col.6 ln.7-16, col.8 ln.1-col.9 ln.42. Koch discloses various ways of determining the action resulting from monitoring, such as blocking transmission from certain addresses, etc.).

However, Koch fails to explicitly disclose a network bridge for coupling IEEE 1394 buses. Kondou discloses, method of network configuration, method and apparatus for information processing, and computer-readable media utilizing a bridges. Kondou further discloses a network bridge wherein the network bridge is for coupling IEEE 1394 buses (Kondou, Abstract, col.1 ln.8-12, col.1 ln.15-20, col.4 ln.57-61.). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Koch with those of Kondou to implement network bridges for coupling IEEE 1394 buses. One would have been motivated to do so, as Koch discloses that the invention is used for known coupling network buses, and IEEE 1394 buses was a well-known standard.

Regarding claim 29, Koch disclosed the limitations as described in claim 9, and further discloses, wherein an extent of a data analysis by the monitoring arrangement for monitoring is adjustable, wherein an analysis of the data and operation on the data are performable in various layers of a layer model, including an OSI reference model, and wherein the monitoring arrangement for monitoring is configured to one of block and prioritize at least one of address interfaces, input interfaces, output interfaces, and logged data, based on an evaluation (Koch, Abstract, col.1 ln.49-65, col.3. ln.1-10, col.6 ln.7-16, col.8

ln.1-col.9 ln.42. Koch discloses various ways of determining the action resulting from monitoring, such as blocking transmission from certain addresses, etc.).

However, Koch fails to explicitly disclose, wherein the network bridge is for coupling IEEE 1394 buses, wherein the higher-level instance includes at least one of a management and configuration layer for the network bridge, wherein the monitoring arrangement for monitoring encompasses a software component within a network bridge architecture, the component having at least one of a gateway functionality and a firewall functionality.

Ogus discloses a network protocol and associated methods for optimizing use of available bandwidth across a network under varying network traffic conditions (Ogus, Abstract). Ogus further discloses, wherein the higher-level instance includes at least one of a management and configuration layer for the network bridge, wherein the monitoring arrangement for monitoring encompasses a software component within a network bridge architecture, the component having at least one of a gateway functionality and a firewall functionality (Ogus. The system detects link saturation, the link bandwidth is calculated to reduce message sending rate, then wait time is calculated at which messages are prohibited/stalled (Ogus, col.3 ln.40-64). Ogus further discloses monitoring the amount of data that is communicated to the recipient (col.19 ln.40-56, col.20 ln.8-22).). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Koch with those of Ogus to monitor the volume of data communicated. One would have been motivated to do so since Koch discloses a bridge that enables high bandwidth and high operating speeds, wherein the system disclosed by Koch monitors the data communicated, and Ogus discloses a method of optimizing the bandwidth that includes monitoring the amount of data communicated.

Kondou discloses, method of network configuration, method and apparatus for information processing, and computer-readable media utilizing a bridges. Kondou further discloses a network bridge wherein the network bridge is for coupling IEEE 1394 buses (Kondou, Abstract, col.1 ln.8-12, col.1 ln.15-20, col.4 ln.57-61.). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Koch with those of Kondou to implement network bridges for coupling IEEE 1394 buses. One would have been motivated to do so, as Koch discloses that the invention is used for known coupling network buses, and IEEE 1394 buses was a well-known standard.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWARD J. KIM whose telephone number is (571)270-3228. The examiner can normally be reached on Monday - Friday 7:30am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 2455

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